ABSTRACT

A device stage assembly (10) for positioning a device (26) is provided herein. The device stage assembly (10) includes a mover housing (44), a device stage (14), a support assembly (18), and a control system (22). The support assembly (18) moves the device stage (14) relative to the mover housing (44) under the control of the control system (22). Uniquely, the support assembly (18) includes at least four, spaced apart Z device stage movers (84), (86), (88), (90) that move the device stage (14) relative to the mover housing (44). Further, the control system (22) controls the Z device stage movers (84), (86), (88), (90) to inhibit dynamic and static deformation of the device stage (14) during movement of the device stage (14). Further, the four Z device stage movers (84), (86), (88), (90) distribute forces on the device stage (14) in a way that more closely matches the gravitational and inertial loads on the device stage (14).

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